CLAIMS

1. An alloy coated boiler part which is constituted such that a coating composed of an alloy material occupied by an Ni-enriched Ni-Cr component over a half proportion of the alloy material is applied to a base metal, and which the alloy coated boiler part is used by being welded to be joined, a weld deposition coating composed of said alloy material in which contents of B and Si being melting point lowering elements are suppressed such that B is 0.1% or less and Si is 0.5% or less is applied over a rapid temperature rise region, where thermal shock cracking may occur at a welding operation, at end portions subjected to weld joint including the vicinity thereof, on the other hand, a weld deposition coating composed of said alloy material of composition in which contents of B and Si are in the range of 1 to 5% respectively is applied on any remaining regions other than the rapid temperature rise region.

2. The alloy coated boiler part according to claim 1, wherein said rapid temperature rise region is a region over between end portions subjected to the welding and positions apart from the end portions by 15 to 50mm.

3. The alloy coated boiler part according to claim 1 or claim 2, wherein super alloy materials of composition stipulated in JIS G 4901, 4902 are used as said alloy materials in which contents of said B and Si are suppressed such that B is 0.1% or less and Si is 0.5% or less.

4. The alloy coated boiler part according to claim 1 or claim 2, wherein Nickel self-fluxing alloy material of composition stipulated in JIS H 8303 is used as said alloy material of the composition in which contents of said B and Si are in the

range of 1 to 5% respectively.

5. The alloy coated boiler part according to claim 1 or claim 2, wherein there is used super alloy materials corresponding to JIS G 4901, 4902-NCF 625 as for said alloy materials in which contents of said B and Si are suppressed such that B is 0.1% or less and Si is 0.5% or less, and there is used nickel self-fluxing alloy materials corresponding to JIS H 8303-SFNi 4 as for said alloy materials of composition in which contents of said B and Si are in the range of 1 to 5% respectively, and thickness ratio between said rapid temperature rise region and said remaining region formed by using these materials is set to 1.2 to 2.0 : 1.

6. The alloy coated boiler part according to claim 1 or claim 2, wherein said alloy coated boiler part is a boiler furnace panel or a boiler tube.

7. The alloy coated boiler part according to claim 1 or claim 2, wherein said alloy coated boiler part is a boiler furnace panel in which a tube material and a plate material are joined alternately, a weld deposition coating composed of said alloy materials in which contents of B and Si are suppressed such that B is 0.1% or less and Si is 0.5% or less is applied inwardly up to a region from exceeding said rapid temperature rise region to reaching said remaining region, and a notch is formed, at end portions of said plate material.

8. A method of welding self-fluxing alloy coated boiler part in which the self-fluxing alloy coated boiler part is constituted such that a weld deposition coating composed of a self-fluxing alloy material occupied by an Ni-enriched Ni-Cr component over a half proportion of the alloy material is applied to a base metal,

comprising the steps of:

forming a gradation preheated region, with end portions subjected to the welding as objects, upon applying preheating process having a heating pattern where an amount of temperature raising gradually reduces inward from the end portions by using slow heating condition that speed of temperature raising at said end portions is 2 to 10°C/sec; and

performing a welding operation of said end portions continuously.

9. The method of welding self-fluxing alloy coated boiler part according to claim 8, wherein said preheating process is performed in the condition that a region widened inwardly by 15 to 50mm than a filler metal applied region in said welding is taken to as said gradation preheated region, and temperature of a maximum temperature portion is set to 450 to 600°C.

10. The method of welding self-fluxing alloy coated boiler part according to claim 8 or claim 9, wherein said welding is a weld building-up in which the alloy material occupied by an Ni-enriched Ni-Cr component over a half proportion thereof and contents of B and Si are suppressed such that B is 0.1% or less and Si is 0.5% or less is taken to as a filler metal and the alloy material is applied to the region spreading inwardly from said end portions.

11. The method of welding self-fluxing alloy coated boiler part according to claim 8 or claim 9, wherein said welding is weld joint in which the alloy material occupied by an Ni-enriched Ni-Cr component over a half proportion thereof and contents of B and Si are suppressed such that B is 0.1% or less and Si is 0.5% or less is taken to as a filler metal with said end portions as an object.